SALMONELLA INDEX

JAN 25 19

S. pullorum-gallinarum 1073-75 1031 1029

SW 905-8 987

S. kenyendorf 1063-8 1024

Lwoffates 999 1002

Phase variation : Exhaustion 1053 ; 1024

uv, heat 1065

genetics 1035-41 979

S. abortus equi + bovis 1042, 52, 62, 31

S. wien etc (lw); napoli 1053 1037 31

Resumé's 1053 1031

S. para A 1045 1008

1 progeny etc { 984 / 986-9 994 1009-12-17-18 1006 1013 1011

uv/phage 999-1010 1007

Organoid summary.

JAN 2 4 1955
JAN 2 5 1955

Pedigrees:

—x SW578	1151
FA12—x SW666.	1131-2-3-4-6-~~7~~8-41 ; 1212
FA60—x SW666	1142-3-4-7-8-9-50
—x SW967	1137
Plantings	1140-3
Chemotaxis 1139	

TRAILS.	CROSSOVERS?	1033	1031	990	1149		
	Segregation	1033.					
	INCIDENCE	1073	1075	990 (flaws)	987	1212	981
	(in H_1 x)	1044					
	Serum effect	975	1003				

O-CROSSES	1149? 988
Motility methods	1048 980
X_p age	1047 972 942

JAN 2 4 1955

$H_1^{1,2}$ and H_1H_1 dupl. stocks and monophasic para B's. 1000 1074 1053 991-2 1036-38-46 1051. 1049 976

Misc φ —x 1071 978 1063-8 1024 1016. 983

Som. antigens 1869 1034 1062 980

$H_{1,2}$ x— 989 1044 (trails)

TM2 Monophasic 1026e 1067 1053

SW666 x— ~~1067~~ 1030 (autoant.) 985 984 1001 986 992-3 971 974 (493) 999

Galv 973 977 1032

SW967 x— 1027

Index notes on Salmonella
9/52 – 1/55.

JAN 24 1955

Pedigrees: 1212 (① → swarm
①s → 20, 11, 9, 9, 8 12 → ≯ 1). 18 isolated; TM2 → x 666 n-s

Details on T/S 1212-14 (FA37 → x SW666 (Jan 55).

Apr 54.

1151 Pedigree → x SW578 (paralytic); ca = T/S.

1150 FA60 → x SW666 (40) isol. ① → swarm
(11) 12, 17, 4, 36, 50, 20, 12, 24, 26, 27, 12 (28) ≯ 1.

1149 60B → x SW666 (37) [+ pool (11).] → swarm ② → swarm Remainder ≯ 1.
⑥ → "large semiclones"
DCG also looked for crossovers.

1148 " " (10) 2 inv., 4 ≯ 1, (20), (30).

1147. " " (2) ① ≯ 1; (5).
(35): 3 inv; 4 swarms; 27 ≯ 1; (48).

1149. Dot also noted that SW967 x SW666 gave swarms (Gal+, gen) ambiguity of 60C! Presumably these were all saved.
But all isolates seemed idiotypic. Question of crossing over, esp. in swarm sites, should be reviewed.

1146 9 → x SW967. "This gives longest tracks". Only (7). : 6 0/10³
1 2/10³...

1144. 60B → x SW666. (10): 1x; (2); (1); (16); (46); SW, (14).

JAN 2 4 1955

1143 60-xsw666 – Some isolations of motiles to plates
16 isolates, no trails.

other isolates pedigreed: see protoc.

1142 60-x SW666 Some isolations to plates. No clear trails.
also (9): 0, 0, 1, 1, 2, 3, 10, >50 (++). → but not swarm!

1141 FA12-x 666 (1): 1 (14); others $>1.

Note FA92 expt., no Fla+ seen microscopically.

1140 (1) platings: 13 (1) plated → 2 swarms, 7 cols. 4 nothing

1139 ØOH ~~tacti~~ taxis

1138 12-x 666 mostly d. do not count, though some pedigrees useful.

1137 9-x967. (12): all $>(1)

1136 Plant 12-x666: 1 swarm; 4 colonies/5.

1334 12-x666 detailed pedigrees
1133 " " incl. 1 swarm (not crossover)
1131-2 " "

JAN 24 1955

3

1073, 1075 S. gallinarum + pullorum for H_1 identity 10/53.
1043 = gm

→ SW967 "few long tracks, 1 swarm"; P1→ "single tracks".

→ 957 "numerous tracks; few swarms".

N97: H_1 H_1 H_2 tests (inconclusive) 1074. see also ~~[illegible]~~ 1000
?

1071 "φk"→ . Note FA84→ SW666 : 5-6 swarms
Mustke→ 0901 ca 100 tracks.

1069 Vi+ S. typhi x— and —x
Misc. phages 978

8/53. S. bunyendorf; and misc nonsp. φ from Cherry 1068, 1063
paraB phages : BAOR
1063
TM2 monophasic SW1067. ~~SW 1067~~ 1067 if 1026e (SW986)
Note: SW1067→ SW666 gave only H_1^b's.
TM2→ SW1061 gave no non-1,2.

UV, heat / phase variation : inconclusive 1065

S. abortus-equi (and bovis) 1042
1062, 1052

Somatic selection (inconclusive) 1034 1062

JAN 24 1955

4

Resumé's at 1053:

SW1047 (N97...) H_1 H_1 1046 1038 1036 992 991

Misc. on S. wien etc. micanol. (cf Aleck; PRE)

→ SW1061 → still monophasic en x: —

but SW1055 → SW1061 (same?) did give c: 1,2

S

1049: misc para B strains.

1045 S. para A.

1051 : H_1 – H_1 – Fla linkage

Used duplication stocks → . No clear result.

1048 Motility agar changes – micanol

1047 X phage

1044 H_1, H_2 transductions (TM. miami abony) + ; note of trailshine!

1041 – Phase variation: resume 1035 979

1037 S. napoli

1033 Fla signification in trailers tested. Some data on T:S ratio.

Serum effects (975)

SW967 Fla linkage. Ratios of gm: i etc.

1032 Gal v? Look for Hft (misguided). 977 973B1

1031 Resumé

JAN 2 4 1955

5

1031 – Resume

Fla$_1$-H$_1$... linkage tests 1008. ; crossovers?
Monophasics (976)
abortus equi, javiana, pullorum
Z33, Z6

1030 "autoantibody" – inhibition of Fla$^+$ H$_1^b$ by Fla$^-$ H$_1^b$?

1027 9–x967 "extensive teach" (This is probably the one saved)

"numerous T, no S" "numerous T, 1S".
has ~~to~~ list of Fla$^-$ types. typing of SW970, 972...

Statement that 9–x967: numerous T, rare swarms } linkage?
10–x967: " and " .

[has there ever been adequate test for Fla$_1^-$ in 9–x967?]

1024 S. ~~ch~~ cholerae suis, formalin ~~stable~~ labile antigen; 1020
Misc ♀ tests & stability tests

6

JAN 2 4 1955

1019 1/53. Cetrimidine for inactivating phage n.g.

1018 "Cooperation of phage"; lysogenization protection - transduction 1009 1017, 1012 994/98 98

1016 Felix O phage. n.g.

1014 PLT22V. 1006

1013 host adaptation

1011 adsorption

1010 999 UV'd PLT22; TM2 Gal-mutants;

1008 S. para A

1007 XRay PLT22

1003 Serum

1002 buffalos. 999

1001 b/i ratios: Fla⁻ linkage? Bias? 993, 992 986

999B UV'd phage → Fla⁻. Gal⁺/Fla⁺/infectivity

990 Flaus + Tracks.

JAN 24 1955

7

989. sendai x—
eastbourne x—

988 "O form crosses" Never completed. Cf. OCG ca 3/53.

987 SW905-908 FA21-x908 "T unusually long & prolific".
x—FA9 : good yield of T+S. (better paralytic?)

985 SW666 (rough?) - b agglutinable?
984 " lysogenic? FA26-x666 28T/0S!
64T/2S!

983 Boyd phages & h.r. tests

982 Rectify SW534 series

981 T/S/Gal+

980 Methods for O forms

974 SW666x— back crosses ; 971

972 X phage

992 546 → × typhi H901 → 3/3 SW930 1,2: —

→ × abony 7/7 1,2: enx

1000 Edwards N25 (SW942?)

and in FA15 → × SW942b → 1,2 again!

1023M Misc on monophasics; ; 5216 → × miami → 1,2: 1,5
SW973

1025 z_{33}

1031 Expts on N97, N25 same xrx b: 1,2)

SW942 /b → 7/7 z_{33}: — only

do 959-960-961

1036 N97 = SW1007, /b → 1036B1 → 1,2 !
mass stock 1,2 slowly

∴ reversible! } repeatable mutation

1036E i → × SW1007 → i: b and cycled

1038 homology tests N97 → × miami → b: 1,5 } H_1^b
→ × TM2 → b: 1,2 } excl H_2^b $H_1^{1,2}$

= TM2 → × SW1007 → 3/3 i: b

→ × 942 → i: —

10385 SW1026x — sendai → a:b:a SW1031
:b

mir. sluggish

Check 1026i → x mainin → 1/2 i:1,5

no b's reformed

see summary of 1044

1046 Fresh N97 = SW1043 $\xrightarrow{b}$ 1,2 1046A1

and check single colonies 6/6 $\xrightarrow{b}$ 1,2

1046B1 = b → SW1043(1,2)
(SW1043b)

1,2's poorly reversible.

---

c) TM2 → SW 1043 2/2 i:1,2:(i)

Salmonella notes 1/61

Is thiwany turnover?

H_2 protein as repressor of H_1 synthesis.

Imo found a stock which was permanently in the phase -1 state.

$$Ph_2^+ H_2^{1.2} Ah_2^- \quad \updownarrow \quad Ph_2^- H_2^{1.2} Ah_2^-$$

or

$$Ph_2^- H_2^{1.2} Ah_2^- \quad \downarrow \quad \neq Ph_2^-.$$

or $Ph_2^- H_2$ stable allele.

? Can $Ph_2^+ Ah_2^-$ be obtained by recombination.

$$Ah_2^- Ph_2^- H_2^{1.2} \longleftarrow Ph_2^+ H_2^{enx} Ah_2^+$$

$$\downarrow$$

$$H_2^{enx} Ph_2^+ Ah_2^-$$ i.e. stable phase 2.

how select ~~in presence of~~ $H_2^{enx} Ph_2^+ Ah_2^+$ variable phase 2.

? Is phase variation going on?

$$Ah_2^- Ph_2^+ H_2^{1.2}$$

$$\updownarrow \qquad \times \longleftarrow Ah_2^+ Ph^{del} H_2^{del} \longrightarrow \text{both phases.}$$

$$Ah_2^- Ph_2^- H_2^{1.2}$$

about 5
APR ~~14~~ 1955

A locus duplication in Salmonella

Genetics of phases. (z^{33})

① Phases of Salmonella ② CDC - ... as H_1.
982 (for SW 534)
b

989 SW 546

91 TM 2 → 546 → 11 i: —
16
27 i: —

b: — → → 3 b: —

b: enx → b: —
↘ enx: 1, 2 × — i: 1, 2
↳ i: enx

TM 2 → 937 12 i: —

all 180

CDC 137 behaves as $H_1^{1,2}$ H_2^{0}. contra other parallels + monophasic 1,2's:

+ considered N25 → CDC 137 by mutation of H_1^{b} → $H_1^{1,2}$